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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/751,187	12/29/2000	Don A. Dykes	1662-34000 (P00-3163)	8527

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EXAMINER

CHANG, ERIC

ART UNIT	PAPER NUMBER
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2116

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DATE MAILED: 04/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/751,187

Applicant(s)

DYKES ET AL.

Examiner

Eric Chang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-23 are pending.

Response to Arguments

2. Applicant's arguments with respect to claims 1-23 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 1, 7-10 and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 6,425,079 to Mahmoud.

5. As to claim 1, Mahmoud discloses a computer system comprising

[a] a microprocessor [col. 1, line 18-19];

[b] startup memory coupled to the microprocessor wherein the startup memory is available upon power up of the system [col. 1, lines 21-24];

[c] an original boot block stored in the startup memory wherein the original boot block checks for a secondary boot block [col. 1, lines 41-56, and col. 3, lines 13-23]; and

[d] wherein the original and second boot blocks are each adapted to perform at least a portion of an initialization of the computer system and then to pass control to an operating system [col. 1, lines 41-56, and col. 3, lines 24-27].

Mahmoud teaches a computer system that begins boot processing and, after loading part of the BIOS from a system ROM, checks for a secondary storage device containing additional BIOS boot code, such as the option ROM BIOS for an adaptor card. The BIOS code from the secondary storage device is then loaded and subsequently executed. Furthermore, it is well known in the art that the boot program such as found in a BIOS is executed prior to the loading of an operating system, substantially as claimed.

6. As to claim 7, Mahmoud discloses the original boot block only performs mandatory initialization functions before checking for a secondary boot block [col. 1, lines 25-28].

Mahmoud teaches the boot processing initializes the computer system prior to checking for a secondary boot block for further boot processing.

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7. As to claims 8-9 and 19, Mahmoud discloses the original boot block is a ROM and therefore protected from modification [col. 1, lines 21-24]. Likewise, it would be well known to one of ordinary skill in the art that if the second boot block were also stored in a non-volatile memory, that it too would be protected from modification as well.

8. As to claim 10, Mahmoud discloses a computer system wherein an original boot block in startup memory is used to initialize the system, checking for a secondary boot block, and executing the routines found in the boot blocks prior to the loading of an operating system. Because Tamura teaches the computer system, Tamura also teaches the method for booting the computer, substantially as claimed.

Claim Rejections - 35 USC § 103

9. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

10. Claims 2-6, 11-18 and 20-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,425,079 to Mahmoud, in view of U.S. Patent 6,622,246 to Biondi.

11. As to claims 2-3, 11-12 and 16, Mahmoud discloses searching for a secondary boot storage device for a secondary boot block [col. 3, lines 13-27]. Mahmoud also teaches that the boot information from both the first and the second boot blocks are copied to a third memory, such as a RAM, for further use by the computer. Thus, Mahmoud teaches all of the limitations

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of the claims, but does not teach checking for a secondary boot block stored in a startup memory at a specific memory address.

Biondi teaches that a first and a second boot block may reside in the same memory [FIG. 3, and col. 3, lines 41-57]. Because Biondi teaches that the size of the boot blocks may vary, Biondi teaches inherent means for determining the location of said boot blocks, such as locating them at specific memory addresses, substantially as claimed.

At the time that the invention was made, it would have been obvious to a person of ordinary skill in the art to employ the boot block address location means as taught by Biondi. One of ordinary skill in the art would have been motivated to do so that multiple boot blocks may be stored on a single storage device.

It would have been obvious to one of ordinary skill in the art to combine the teachings of the cited references because they are both directed to the problem of storing multiple boot blocks for boot processing in a computer system. Moreover, the single storage device containing both boot blocks taught by Biondi would improve the efficiency of Mahmoud because it allowed both boot blocks to be stored without utilizing additional hardware, thereby allowing option ROM BIOS data to be stored in a single memory device, while maintaining the capability to detect whether a second boot block exists.

12. As to claims 4-6 and 13-15, Biondi discloses verifying that the secondary boot block exists [col. 4, lines 33-44], and that it may further be verified by performing the checksum [col. 3, lines 66-67, and col. 4, lines 1-6]. In addition, Mahmoud also teaches performing a checksum

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in order to verify the integrity of a secondary boot block [col. 3, lines 43-44], substantially as claimed.

13. As to claim 17, Mahmoud discloses the original boot block only performs mandatory initialization functions before checking for a secondary boot block [col. 1, lines 25-28].

Mahmoud teaches the boot processing initializes the computer system prior to checking for a secondary boot block for further boot processing.

14. As to claim 18, Mahmoud also discloses the original boot block is a ROM and therefore protected from modification [col. 1, lines 21-24].

15. As to claims 20 and 22, Mahmoud discloses a computer system wherein an original boot block in startup memory is used to initialize the system, checking for a secondary boot block, and executing the routines found in the boot blocks prior to the loading of an operating system. In addition, Mahmoud teaches executing the code from the original boot block [col. 1, lines 25-28], and subsequently passing control to the execution of code from the secondary boot block [col. 3, lines 25-27]. Furthermore, Biondi teaches that the plurality of boot blocks may be stored on the same memory device, such as a ROM, substantially as claimed.

16. As to claim 21, Mahmoud discloses a third boot block [col. 1, lines 41-52]. Mahmoud teaches that a plurality of adapters may exist within the computer system, and that the option BIOS ROM for each adapter is incorporated as part of the boot process. Therefore, Mahmoud

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teaches a third boot block that receives control when its code is executed after it is located and loaded [col. 3, lines 24-27], substantially as claimed.

17. As to claim 23, Mahmoud discloses the ROM comprises one of a PROM, EEPROM or flash ROM [col. 9, lines 35-42].

Conclusion

18. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Chang whose telephone number is (703) 305-4612. The examiner can normally be reached on M-F 9:00-5:30.

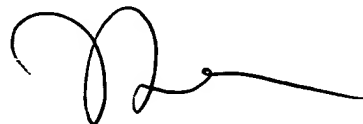
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Lee can be reached on (703) 305-9717. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ec

April 1, 2004



THOMAS LEE
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